



# CITY OF DUBLIN • BUILDING & SAFETY DIVISION

100 Civic Plaza, Dublin, California 94568

Website: <http://www.dublin.ca.gov>

Phone: (925) 833-6620

Fax: (925) 833-6628

<b>CERTIFICATE OF COMPLIANCE</b>	<b>CF1R-ALT-01-E Water Heater</b>
<b>Prescriptive Residential Alterations Water Heater</b>	<b>Page 1 of 2</b>
<b>Project Name:</b>	<b>Date Prepared:</b>

GENERAL INFORMATION					
<b>01</b>	<b>Address</b>		<b>02</b>	<b>Building Orientation</b>	<b>N/A</b>
<b>03</b>	<b>City</b>	<b>Dublin</b>	<b>04</b>	<b>Number of Units</b>	
<b>05</b>	<b>Zip</b>	<b>94568</b>	<b>06</b>	<b>Fuel Type</b>	
<b>07</b>	<b>Climate Zone</b>	<b>12</b>	<b>08</b>	<b>Floor Area</b>	<b>N/A</b>
<b>09</b>	<b>Building Type</b>		<b>10</b>	<b>Slab Area</b>	<b>N/A</b>
<b>11</b>	<b>Project Scope</b>		<b>12</b>	<b># of Stories</b>	<b>N/A</b>

Water Heating Systems (Section 150.2(b)1G)							
<b>01</b>	<b>02</b>	<b>03</b>	<b>04</b>	<b>05</b>	<b>06</b>	<b>07</b>	<b>08</b>
<b>Water Heating System ID or Name:</b>	<b>Water Heating System Type:</b>	<b>Water Heating Type:</b>	<b># of Water Heaters In System:</b>	<b>Water Heater Storage Volume (Gal):</b>	<b>Fuel Type: Nat Gas Propane <i>Electric only if gases not avail.</i></b>	<b>Rated Input Type:</b>	<b>Rated Input Value:</b>

<b>09</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>
<b>Heating Efficiency Type:</b>	<b>Heating Efficiency Value:</b>	<b>Standby Loss (%)</b>	<b>Exterior Insul. R-Value:</b>	<b>Back-Up Solar Savings Fraction:</b>	<b>Central DHW System Distribution Type:</b>	<b>Dwelling Unit DHW System Distribution Type:</b>

## G. WATER HEATING SYSTEMS

Water heating compliance for an alteration is described in Section 150.2(b). For single dwelling a gas or propane water heater, with a storage tank or instantaneous (tankless) can be used, 60 gallon max if electric. Dwelling Unit distribution systems are limited to Standard trunk and branch or demand recirculation for gas or propane water heater. Demand recirculation is not allowed for electric water heater. If there is no natural gas connected to the building, an electric water heater may be replaced with another electric water heater. However, changing from gas to electric is not allowed... Multi-family central systems must use certified equipment as defined under Section 110.1 and 110.3.

- NOTE: If the proposed installation does not meet the requirements allowed specifically for alterations, use form CF1R-NCB-01 to document the water heater alteration.
1. Water Heating System Identification or Name: enter a unique name for the Water Heating System.
  2. Water heating system type: Domestic Hot Water (DHW), Hydronic, Combined Hydronic, or Central. DHW is for domestic hot water, hydronic is a water heating system used for space heating only; combined hydronic are when the water heater will provide both space conditioning and domestic hot water.

3. Water heater type. For non-central systems only Small Storage or Small Instantaneous are allowed. For central systems pick from Large Storage, Small Storage, Heat Pump, Boiler, Large Instantaneous, Small Instantaneous or Indirect.
4. Number of water heaters in system: In single-family and multi-family with water heaters in each dwelling units the value is 1. For multi-family central systems serving multiple dwelling units enter the total number of water heaters.
5. Water heater volume (gal): tank capacity in gallons. For individual water heaters for a dwelling unit this will be 60 gallons or less if electric. If instantaneous, enter N/A. For multi-family central systems enter the total storage volume.
6. Fuel Type: Gas, Propane, Electric (Only if natural gas is not available)
7. Rated Input Type: Enter the equipment input rating type, for gas or propane fired units are Btuh, for electric fired system the units are kW.
8. Rated Input Value: Enter the numeric value of rated input.
9. Heating Efficiency Type: Energy Factor, AFUE, or Thermal Efficiency. From product literature or a California Energy Commission directory.
10. Heating Efficiency Value: Enter the value from product literature or a California Energy Commission directory
11. Standby Loss (percent): Applies only to large storage water heaters, Enter N/A for small storage or instantaneous water heaters.
12. Exterior Insulation R-Value: Enter the R-value if exterior insulation on the storage tank is installed
13. Back-up solar savings fraction: If compliance requires a back-up solar system, indicate the solar contribution (e.g., 0.30). External calculations are required.
14. Central DHW Distribution System: For multi-family buildings with using a central distribution system a demand recirculation system with at least two distribution loops must be installed. This requirement applies to any building with eight or more units. If the system is non-central or project is individual units enter N/A.
15. Dwelling Unit DHW Distribution Type: For a Central DHW this field shall be Standard. If non-central then pick from Standard, Demand Recirculation – Manual Control, Demand Recirculation – Sensor Control. If non-central electric water heater this must be Standard, no recirculation system shall be installed.

Documentation Author's Declaration Statement	
<ul style="list-style-type: none"> <li>I certify that this Certificate of Compliance documentation is accurate and complete.</li> <li>I certify that the energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 6 of the California Code of Regulations.</li> <li>The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.</li> </ul>	
Name:	Signature:
Company:	Date:
Address:	License:
City/State/Zip	Phone
For assistance or questions regarding the Energy Standards, contact the Energy Hotline at: 1-800-772-3300	